

ABSTRACT OF THE DISCLOSURE

A method of generating an arbitrary-shaped dynamic user interface first loads in an interactive animation file, then obtains the invalidated rectangle of each frame and only refreshes the contents in the invalidated rectangle of each frame. The refreshed
5 result is output to an output device such as a display. The invalidated rectangle refers to a rectangle area whose contents change between a frame and its previous frame. In an embodiment of the invention, a Flash object is used as an arbitrary-shaped user interface. The dynamic effects are then achieved by refreshing the contents in the invalidated rectangle of each Flash object in each frame.

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